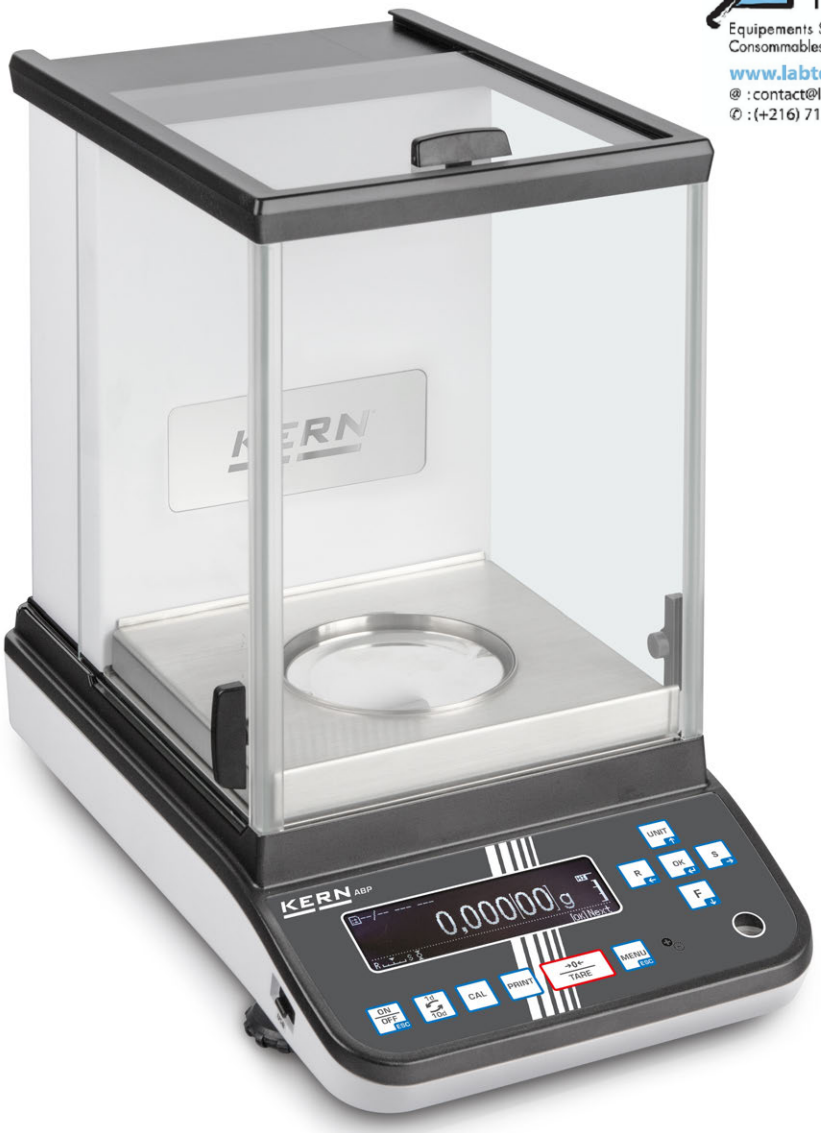
Analytical balances KERN ABP

NEW

PREMIUM ★★★



1 **KERN ABP 100-5DM** with optional ionizer

1 NEW: Extremely fast ionization process, thanks to the latest generation of KERN ionization technology to neutralise electrostatic charge for fixed installation in the analytical balance. Particularly convenient handling as you no longer need a separate device. Simply enable the ionizer fan at the push of a button. Suitable for all models

Premium analytical balance with the latest Single-Cell Generation for extremely rapid, stable weighing results

Bright OLED display with large viewing angle for the very best readout from a wide range of lines of sight or poor lighting conditions

USB data interfaces and RS-232
for transferring weighing data to the PC, tablet, printer, USB as well as connecting external devices, such as barcode scanner (option), numeric keypad (option) etc.

GLP/ISO record keeping
professional and detailed GLP protocol, so that the scale is fully compliant with the relevant standard requirements according to ISO, GLP and GMP

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Features

- This new generation of analytical balances combines the highest level of precision with large weighing capacities. Thanks to the new Single-Cell Generation, the weighing result is displayed in a fraction of the time with comparable models. Together with the intuitively structured menu, this means that you can work efficiently and rapidly
- **Navigation pad** for super quick navigating through the menus
- **Automatic internal adjustment** in the case of a change in temperature ≥ 1 °C or timecontrolled every 4 h, guarantees high degree of accuracy and makes the balance independent of its location of use. For applications which do not require verification the time interval can be individually adjusted
- The **Minimum weight of sample** can be manually stored in the device or automatically calculated. For weighings below this value, the balance issues a warning message
- **Dosage aid:** High-stability mode and other filter settings can be selected
- **Simple recipe weighing and documenting** with a combined tare/print function. In addition, the ingredients for the recipe are numbered automatically and printed out with their corresponding number and nominal weight
- **Individual user settings for up to 10 users can be saved:** user name/user number (can be printed out or added to the record for each process), password, menu language, user profiles, accessing user settings via barcode, additional guest mode for users who are not logged in, authorizations, eg. B. balance adjustment, changing settings or conditioning or modification of a recipe only by the authorized person & performing the formulation by the user
- **U.S. FDA 21 Part 11**: assists you in data integrity in accordance with U.S. Pat. FDA 21 Part 11 (for example (weighing result, sample ID, user name, scales ID, ...)
- Menu language DE, GB
- **Automatic data output to the PC/printer** each time the balance is steady
- **Large glass draught shield** with 3 sliding doors for easy access to the items being weighed.
- 2 **Multi-function weighing plate** included with delivery, minimises the effect of currents of air in the weighing space and therefore significantly improves the stabilization time and repeatability. In addition samples, sample paper, PCR containers, micro centrifuge tubes and many other items which protrude can be easily fixed in place and weighed easily
- **Protective working cover included with delivery**

Technical data

- Luminescent OLED display, digit height 14 mm, bright with high contrast, for easy reading of the weight, even in poor lighting conditions
- Dimensions weighing surface ⌀ 91 mm
- Overall dimensions (incl. draught shield) W×D×H 213×407×344 mm
- Weighing space W×D×H 166×156×220 mm
- Net weight approx. 8 kg
- Permissible ambient temperature 10 °C/30 °C

Accessories

- **Protective working cover**, scope of delivery: 5 items, KERN YBA-A06S05
- 1 **Draft shield rear panel with integrated ionizer** to neutralise electrostatic charge. Is fitted in place of the existing glass rear panel of the draft shield. Suitable for all models in the KERN ABP range, please order at the time you order your balance, the scope of delivery is the rear panel, ionizer, power supply. Factory Option, KERN ABP-A01
- 3 **Weighing table** to absorb vibrations and oscillations, which would otherwise distort the weighing result, KERN YPS-03
- **Minimum weight of sample**, smallest weight to be weighed, depending on the required process accuracy, only in combination with a DAkkS calibration certificate, KERN 969-103
- **Equipment qualification:** compliant qualification concept which includes the following validation services, Installation Qualification (IQ), Operating Qualification (OQ), KERN 961-231B
- Further details, plenty of further accessories and suitable printers see *Accessories*

Single-cell advanced technology:

- **Fully automatic manufactured weighing cell from one piece of material**
- **Stable temperature behaviour**
- **Short stabilisation time:** steady weight values within approx. 2 s! (models with [d] = 0,1 mg), approx. 8 s! (models with [d] = 0,01 mg) under laboratory conditions
- **Shock proof construction**
- **High corner load performance**

STANDARD: CAL INT · RS 232 · USB (2x) · GLP INTERN · PCS · RECIPE · PERCENT · UNIT · MOVE · UNDER · MULTI · SC TECH · 1 DAY
OPTION: DAkkS +3 DAYS
FACTORY: M +3 DAYS

Model KERN	Weighing capacity [Max] g	Readability [d] mg	Verification value [e] mg	Minimal load [Min] mg	Reproducibility mg	Linearity mg		Option: Verification MI KERN		Option: DAkkS Calibr. Certificate DAkkS KERN	
ABP 100-4M	120	0,1	1	10	0,1	± 0,2		965-201		963-101	
ABP 200-4M	220	0,1	1	10	0,1	± 0,2		965-201		963-101	
ABP 300-4M	320	0,1	1	10	0,1	± 0,3		965-201		963-101	
Dual-range balance switches automatically to the next largest weighing capacity [Max] and readibility [d]											
ABP 100-5DM	52 | 120	0,01 | 0,1	1	1	0,02 | 0,1	± 0,03 | 0,3		965-201		963-101	
ABP 200-5DM	102 | 220	0,01 | 0,1	1	1	0,02 | 0,1	± 0,03 | 0,3		965-201		963-101	

Note: For applications that require verification, please order verification at the same time, initial verification at a later date is not possible. Verification at the factory, we need to know the full address of the location of use.

Pictograms

Internal adjusting:
Quick setting up of the balance's accuracy with internal adjusting weight (motordriven)

Adjusting program CAL:
For quick setting up of the balance's accuracy. External adjusting weight required

Easy Touch:
Suitable for the connection, data transmission and control through PC, tablet or smartphone

Memory:
Balance memory capacity, e.g. for article data, weighing data, tare weights, PLU etc.

Alibi memory:
Secure, electronic archiving of weighing results, complying with the 2014/31/EU standard.

Data interface RS-232:
To connect the balance to a printer, PC or network

RS-485 data interface:
To connect the balance to a printer, PC or other peripherals. Suitable for data transfer over large distances. Network in bus topology is possible

USB data interface:
To connect the balance to a printer, PC or other peripherals

Bluetooth* data interface:
To transfer data from the balance to a printer, PC or other peripherals

WLAN data interface:
To transfer data from the balance to a printer, PC or other peripherals

Control outputs (optocoupler, digital I/O):
To connect relays, signal lamps, valves, etc.

Analogue interface:
to connect a suitable peripheral device for analogue processing of the measurements

Interface for second balance:
For direct connection of a second balance

Network interface:
For connecting the scale to an Ethernet network

Wireless data transfer:
between the weighing unit and the evaluation unit using an integrated radio module

*The *Bluetooth*® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by KERN & SOHN GmbH is under license. Other trademarks and trade names are those of their respective owners.

KERN Communication Protocol (KCP):
It is a standardized interface command set for KERN balances and other instruments, which allows retrieving and controlling all relevant parameters and functions of the device. KERN devices featuring KCP are thus easily integrated with computers, industrial controllers and other digital systems

GLP/ISO log:
The balance displays serial number, user ID, weight, date and time, regardless of a printer connection

GLP/ISO log:
With weight, date and time. Only with KERN printers

Piece counting:
Reference quantities selectable. Display can be switched from piece to weight

Recipe level A:
The weights of the recipe ingredients can be added together and the total weight of the recipe can be printed out

Recipe level B:
Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through display

Recipe level C:
Internal memory for complete recipes with name and target value of the recipe ingredients. User guidance through display, multiplier function, adjustment of recipe when dosages are exceeded or barcode recognition

Totalising level A:
The weights of similar items can be added together and the total can be printed out

Percentage determination:
Determining the deviation in % from the target value (100 %)

Weighing units:
Can be switched to e.g. nonmetric units at the touch of a key. See balance model. Please refer to KERN's website for more details

Weighing with tolerance range:
(Checkweighing) Upper and lower limiting can be programmed individually, e.g. for sorting and dosing. The process is supported by an audible or visual signal, see the relevant model

Hold function:
(Animal weighing program) When the weighing conditions are unstable, a stable weight is calculated as an average value

Protection against dust and water splashes IPxx:
The type of protection is shown in the pictogram.

Stainless steel:
The balance is protected against corrosion

Suspended weighing:
Load support with hook on the underside of the balance

Battery operation:
Ready for battery operation. The battery type is specified for each device

Rechargeable battery pack:
Rechargeable set

Universal mains adapter:
with universal input and optional input socket adapters for A) EU, CH; B) EU, CH, GB, USA; C) EU, CH, GB, USA, AUS

Mains adapter:
230V/50Hz in standard version for EU. On request GB, USA or AUS version available

Power supply:
Integrated in balance. 230V/50Hz standard EU. More standards e.g. GB, USA or AUS on request

Weighing principle: Strain gauges
Electrical resistor on an elastic deforming body

Weighing principle: Tuning fork:
A resonating body is electromagnetically excited, causing it to oscillate

Weighing principle: Electromagnetic force compensation
Coil inside a permanent magnet. For the most accurate weighings

Weighing principle: Single cell technology:
Advanced version of the force compensation principle with the highest level of precision

Verification possible:
The time required for verification is specified in the pictogram

DAkkS calibration possible:
The time required for DAkkS calibration is shown in days in the pictogram

Package shipment:
The time required for internal shipping preparations is shown in days in the pictogram

Pallet shipment:
The time required for internal shipping preparations is shown in days in the pictogram

KERN – Precision is our business

To ensure the high precision of your balance KERN offers you the the appropriate test weight in the international OIML error limit classes E1-M3 from 1 mg - 2500 kg.
In combination with a DAkkS calibration certificate the best pre-requisite for proper balance calibration.

The KERN DAkkS calibration laboratory today is one of the most modern and best-equipped DAkkS calibration laboratories for balances, test weights and force-measurement in Europe.
Thanks to the high level of automation, we can carry out DAkkS calibration of balances, test weights and force-measuring devices 24 hours a day, 7 days a week.

Range of services:
- DAkkS calibration of balances with a maximum load of up to 50 t
- DAkkS calibration of weights in the range of 1 mg – 2500 kg
- Volume determination and measuring of magnetic susceptibility (magnetic characteristics) for test weights
- Database supported management of checking equipment and reminder service
- Calibration of force-measuring devices
- DAkkS calibration certificates in the following languages DE, GB, FR, IT, ES, NL, PL
- Conformity evaluation and reverification of balances and test weights

Your KERN specialist dealer: